

Tablet PCs and Internet Communication for Teaching Classes, Office Hours, and Review Sessions – It's Blended Learning for On-Campus and Distance Students

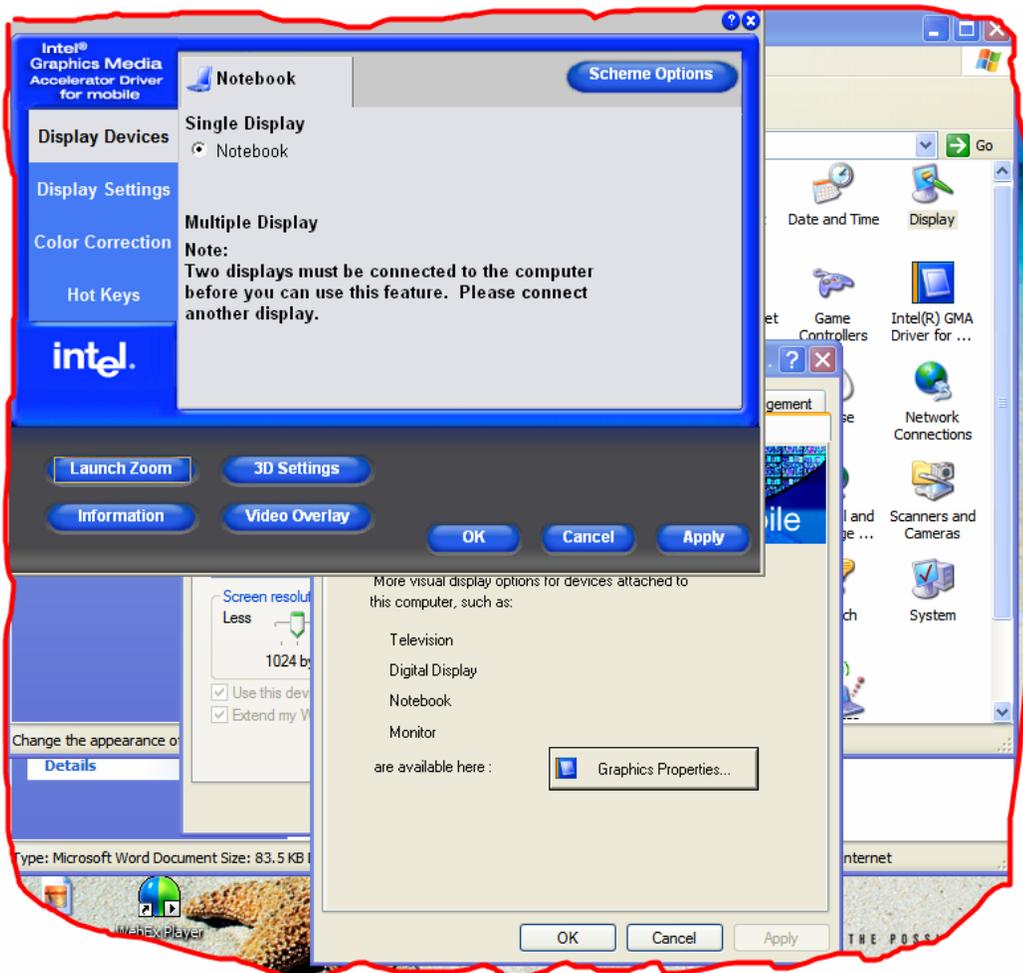
Teaching and Learning Technology Conference

Douglas R. Carroll

April 25, 2008

1. One of the most important goals of this training session is to encourage faculty to begin to use tablet PCs in the classroom. In its most basic mode, the tablet PC is a chalkboard, and faculty will write on it and present the lecture the same way they would present on the chalkboard. The information written on the tablet PC will be projected on the screen in the room. Faculty can use the chalkboards or whiteboards in the room in addition to the tablet PC. As faculty become comfortable with the tablet PC technology, it will be an easier transition to teaching distance education courses.

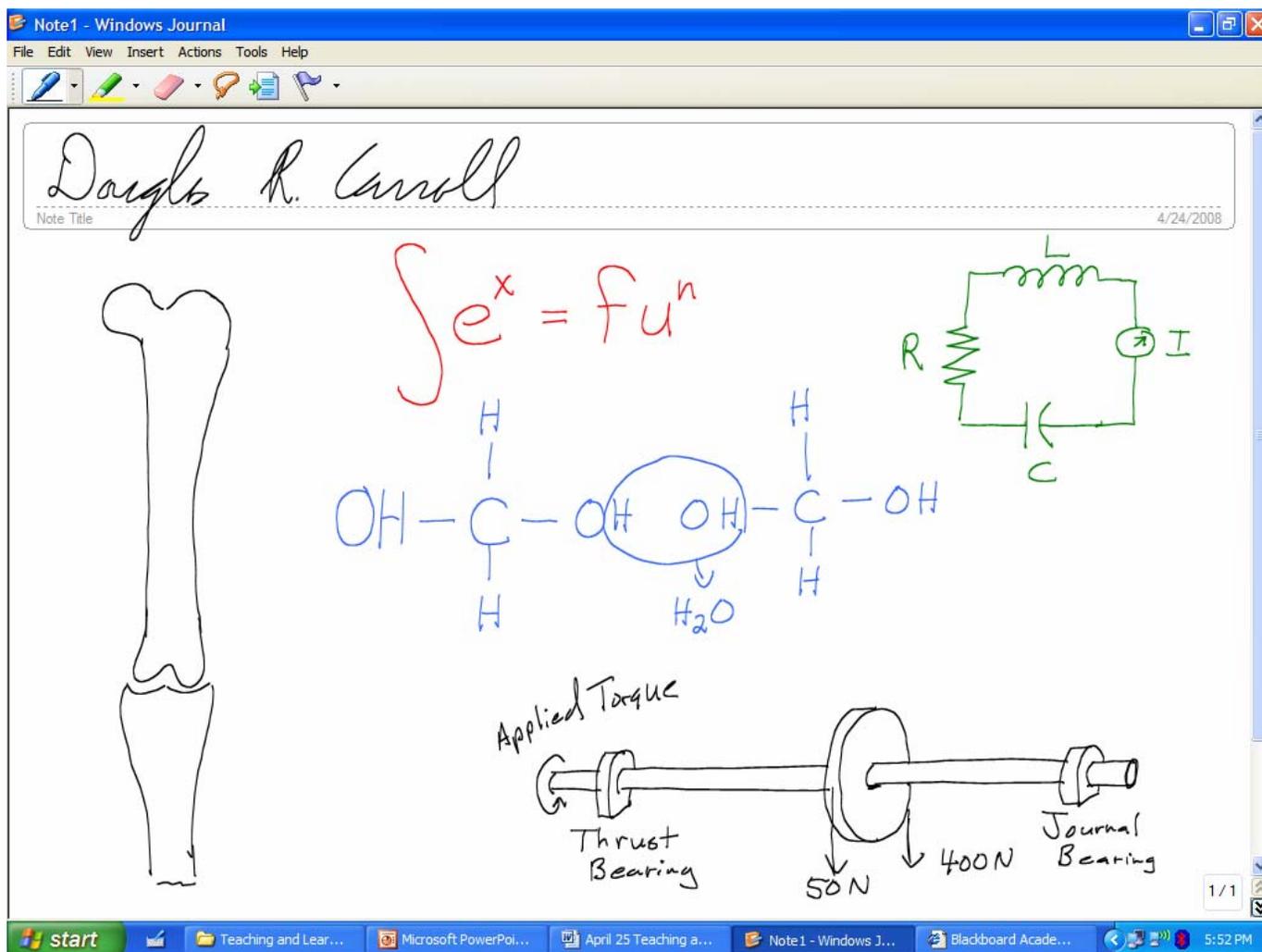
Having the Fujitsu tablet PC to drive the projector is unfortunately complex. It is a weakness of the computer. First, the screen should be turned around and put in tablet mode. Click the button on the screen to make it landscape instead of portrait. If the computer is left in portrait mode the projector will display the image sideways. Then the series Start – Control Panel – Display – Settings – Intel(R) Graphics Media Accelerator Driver tab – Graphic Properties – Multiple Display will cause the computer to drive the projector and LCD. The figure below might be helpful when working through the screens. Unfortunately there is no better or easier way to have the Fujitsu drive the projector and also have the computer in tablet mode.



2. The next part of the presentation is to get familiar with the Windows Journal software. Attendees will be asked to put their computer in tablet mode and open Windows Journal.

- Have the tablet in landscape mode and use File – Page Setup to put the Journal document in landscape mode.
- Choose View – Page Width so that the page will be sized to fill the screen.
- Choose View – Toolbars – Pen if it is not already open.

When everything is set properly, the screen should look like the figure below.

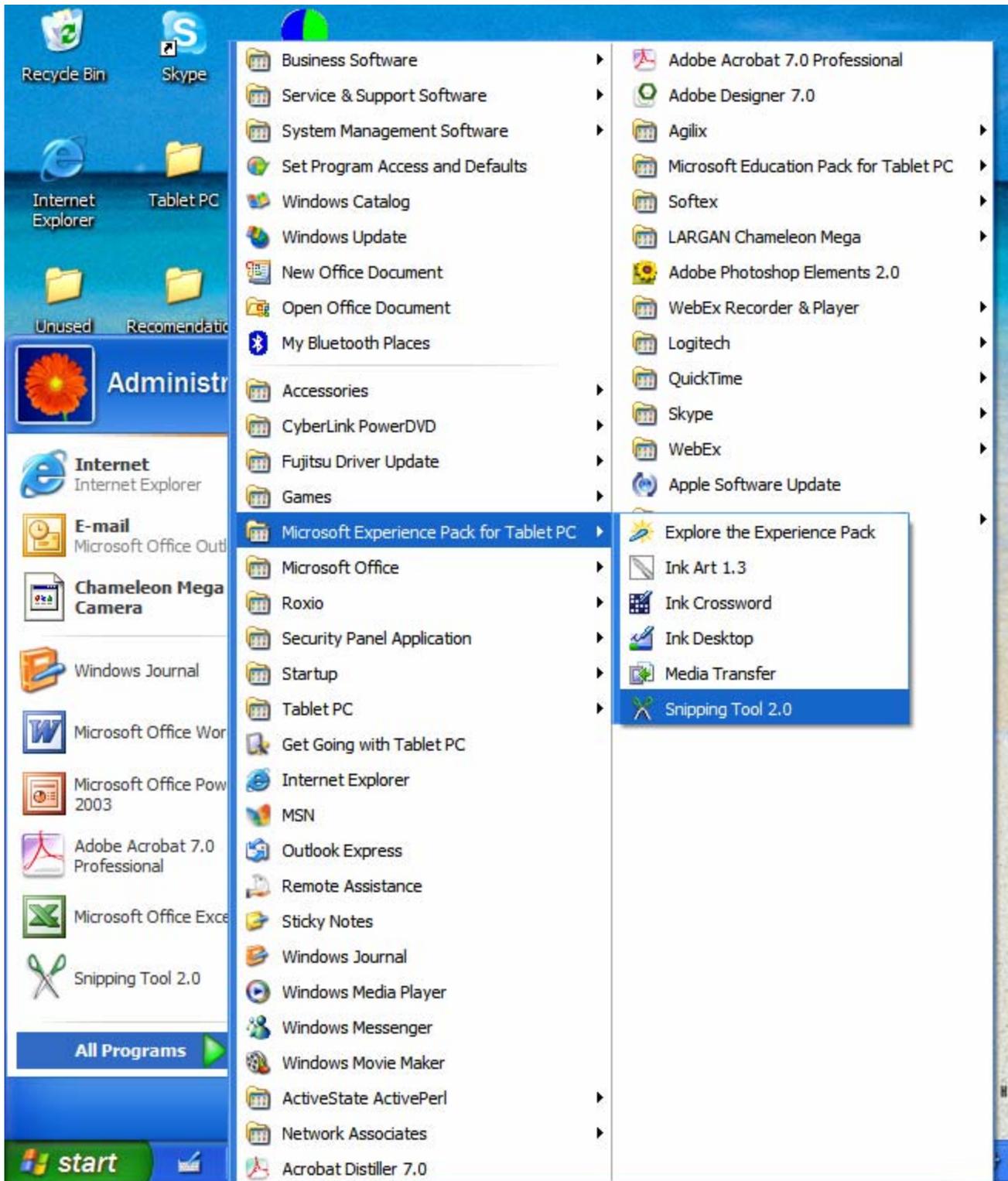


The next goal is to have everyone practice with the pencil and fill the screen with writing and drawings, as illustrated above.

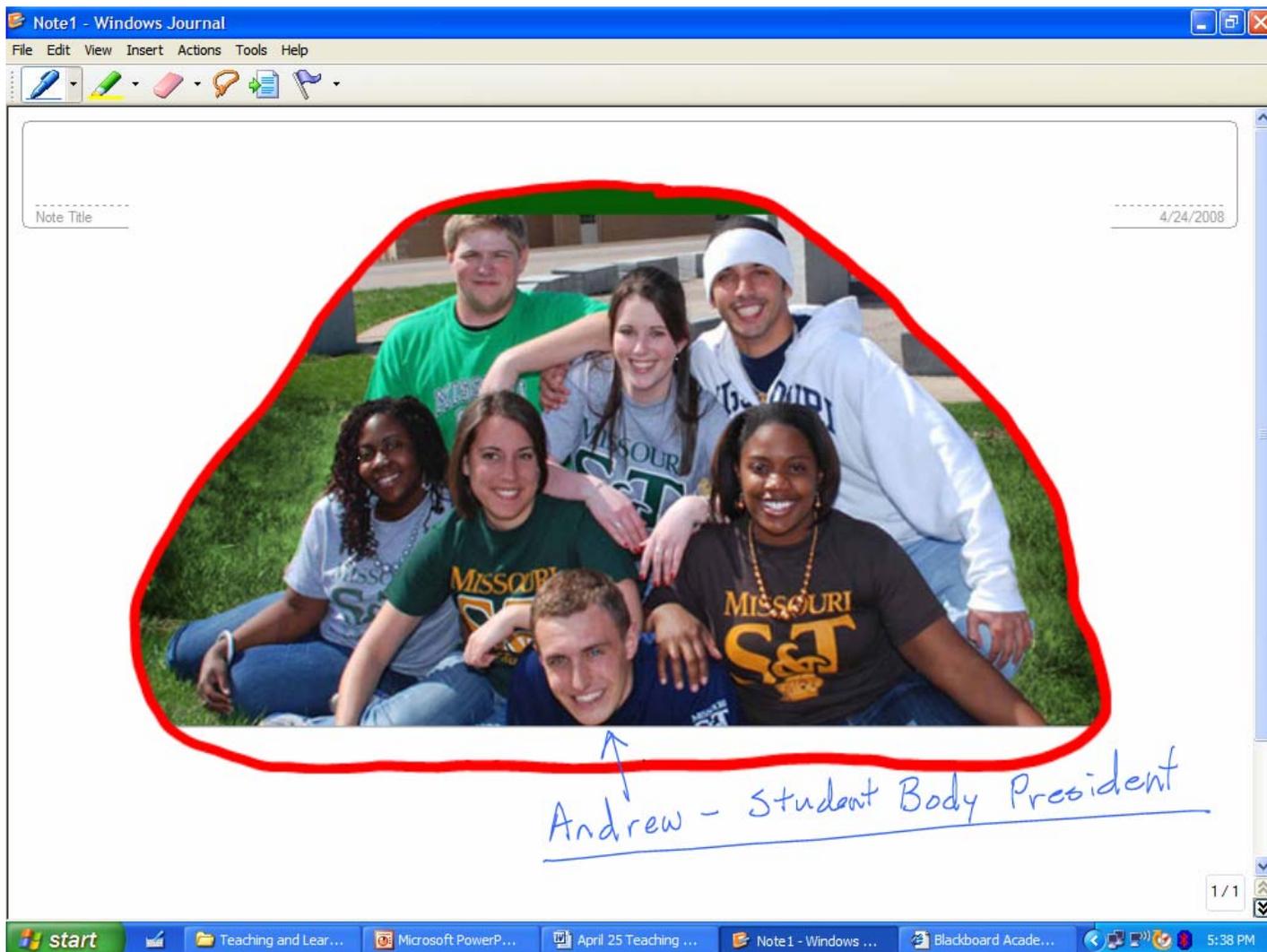
- Change Pencil colors.
- Erase with the top of the pencil.
- Lasso and object and move it around the screen and change the size.

When the screen is full, use Edit- Select All to select everything on the screen, and then shrink it down to create more space for writing.

3. The next goal is to learn to use the tool called “Snipping Tool”. Attendees should open a web page or some other document that has a picture. Snipping Tool works with any software. The goal is to choose part of the image and place it in the Journal Document. Start – Microsoft Experience Pack for Tablet PC – Snipping Tool will start the tool. Attendees should circle an image using the pencil in one stroke. An icon will appear at the bottom center of the screen giving attendees the option to copy the circled image to the clipboard.



Once it is copied to the clipboard, the circled image can be pasted into the Journal document, or into many other types of documents. The image below was snipped from a web page to illustrate the results. Once the image is pasted into a journal document, it can be marked up to illustrate key points in the image, as illustrated below.



The screenshot shows a 'Note1 - Windows Journal' window. The title bar includes standard window controls and the text 'Note1 - Windows Journal'. Below the title bar is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Actions', 'Tools', and 'Help'. A toolbar contains icons for drawing tools: a blue pen, a green highlighter, a pink eraser, a yellow lasso, a blue document, and a blue flag. The main area of the journal is white and contains a photo of seven students. The photo is circled in red. Below the photo, the text 'Andrew - Student Body President' is written in blue ink, with a blue arrow pointing to the student in the front center of the photo. The photo shows seven students, four men and three women, all wearing Missouri S&T apparel. The student in the front center is a young man with short brown hair, wearing a dark blue t-shirt. The other students are arranged around him, some sitting and some standing. The background of the photo is a grassy area with a building in the distance. The journal window also has a 'Note Title' field on the left and a date field '4/24/2008' on the right. The taskbar at the bottom shows the 'start' button, several open applications including 'Teaching and Lear...', 'Microsoft PowerP...', 'April 25 Teaching ...', 'Note1 - Windows ...', and 'Blackboard Acade...', and the system clock showing '5:38 PM'.

The purpose of the presentation to this point is to help faculty become comfortable with the tablet PC technology. Once faculty are comfortable with the tablet PC, it is a relatively short step to doing distance education. The tablet PC is an indispensable tool for teaching problem solving courses in mathematics, science and engineering.

4. The next part of the presentation focuses on using the communication technology required for distance education. The most common communication software packages today are Webex, Horizon Wimba, Elluminate Live!, and Macromedia Connect. The presenter has experimented with all four of the software packages above, and they are similar. Learning to use one of them makes it easy to learn the others. This presentation will focus on Webex because that is what is used at Missouri S&T.

The first step is to log into Webex and start a (virtual) meeting:

- a. Go to mstedu.webex.com [There is no www in the web site.]
- b. In the left column choose "Host a Meeting" and then "Schedule a Meeting"
- c. The next screen requires a user name and password. The user name and password are obtained from Ross Hazelhorst in the Video Communications Center. It is necessary to have permission, and a user name and password to host a meeting. Once the meeting is started, anyone who knows the password can attend and participate in the meeting.
- d. The topic of the meeting can be set to any name. The password that most faculty at Missouri S&T have been using is 123456. Webex requires the password to be typed twice to confirm that there was no mistyping. A 6 digit password is required, and the number 123456 makes it simple for students to remember the password when logging in.
- e. If the session is not going to be recorded, then clicking on "Start Now" will start the meeting. If the meeting is to be recorded, then it is necessary to click on "Advanced Scheduler", "Meeting Options", and then check the box that allows recording. Once the recording box is checked, the meeting can be started. One of the quirks of Webex is that if the recording box is not checked before the meeting is started, it is not possible to record the meeting and save it to the computer. The recording will be saved on a distant server and is difficult to retrieve.

Once the Webex meeting is started, attendees will join the meeting and experiment with the software.

5. The communication software has a voice-over IP (VoIP) option that will allow the faculty member to talk with the students using a headset microphone. It is possible for students to talk also, but there are some issues with having a lot of open microphones, as will be discussed. Attendees will learn to mute and unmute their microphone and take turns talking to experiment with the software. The best way to understand the strengths and limitations of the VoIP is to use it.

6. Attendees will learn about the chat box and participant list. The participant list is a list of all the people attending the meeting. The Host can use the list to transfer control of the meeting to any of the attendees. The Host always has the option to take control back, to mute microphones, or even to expel people from the meeting if necessary. The rest of the training period will be spent transferring control to different people to allow individuals to practice being in control of the meeting, while the rest of the attendees text messages and questions to the presenter and each other.